

L Number	Hits	Search Text	DB	Time stamp
1	565	(multidimension\$2 or multi-dimension\$2 or (multiple adj2 dimension\$3) or (plurality adj2 dimension\$2)) with database	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/24 08:36
8	781	(multidimension\$2 or multi-dimension\$2 or (multiple adj2 dimension\$3) or (plurality adj2 dimension\$2)) same database	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/24 08:37
15	1995	(aggregate! or aggregation!) near2 (operation\$2 or value\$2)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/24 08:42
22	98	((aggregate! or aggregation!) near2 (operation\$2 or value\$2)) and (storage! same cell\$2)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/24 08:43
29	8	((multidimension\$2 or multi-dimension\$2 or (multiple adj2 dimension\$3) or (plurality adj2 dimension\$2)) same database) and ((aggregate! or aggregation!) near2 (operation\$2 or value\$2)) and (storage! same cell\$2))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/24 08:43
36	1	((multidimension\$2 or multi-dimension\$2 or (multiple adj2 dimension\$3) or (plurality adj2 dimension\$2)) same database) and ((aggregate! or aggregation!) near2 (operation\$2 or value\$2)) and (storage! same cell\$2))) and (sparse! or sparsity!)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/24 08:51
50	3	((multidimension\$2 or multi-dimension\$2 or (multiple adj2 dimension\$3) or (plurality adj2 dimension\$2)) same database) and ((aggregate! or aggregation!) near2 (operation\$2 or value\$2)) and (storage! same cell\$2))) and (store! or storing!)) and (hierarch\$5 same attribut\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/24 08:53
43	7	((multidimension\$2 or multi-dimension\$2 or (multiple adj2 dimension\$3) or (plurality adj2 dimension\$2)) same database) and ((aggregate! or aggregation!) near2 (operation\$2 or value\$2)) and (storage! same cell\$2))) and (store! or storing!)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/24 09:04

	Document ID	Issue Date	Pages	Title	Current OR
1	US 20020059203 A1	20020516	25	Performing spreadsheet-like calculations in a database system	707/3
2	US 6282546 B1	20010828	17	System and method for real-time insertion of data into a multi-dimensional database for network intrusion detection and vulnerability assessment	707/102
3	US 6094651 A	20000725	19	Discovery-driven exploration of OLAP data cubes	707/5
4	US 5926820 A	19990720	18	Method and system for performing range max/min queries on a data cube	707/200
5	US 5890151 A	19990330	21	Method and system for performing partial-sum queries on a data cube	707/5
6	US 5799300 A	19980825	19	Method and system for performing range-sum queries on a data cube	707/5
7	US 5604854 A	19970218	38	System and methods for reformatting multi-dimensional spreadsheet information	707/503

	Current XRef	Retrieval Classif	Inventor
1	707/102		Witkowski, Andrew et al.
2	707/6; 713/201		Gleichauf, Robert et al.
3	707/2; 707/200		Agrawal, Rakesh et al.
4	707/5		Agrawal, Rakesh et al.
5	707/1; 707/100; 707/2; 707/200; 707/3; 707/4; 707/503; 707/504; 707/6		Agrawal, Rakesh et al.
6			Agrawal, Rakesh et al.
7	345/419; 345/788; 707/504; 707/509		Glassey, Colin R.



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[hierarchies<AND>((storage<AND>((aggregates<AND>((multi-dimensional<AND>  
<AND>((shukla <near/2> a)<IN> author))) ) ) ) ) ]

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### 1 Caching multidimensional queries using chunks 87%

Prasad M. Deshpande , Karthikeyan Ramasamy , Amit Shukla , Jeffrey F. Naughton

ACM SIGMOD Record , Proceedings of the 1998 ACM SIGMOD international conference on Management of data June 1998  
Volume 27 Issue 2

Caching has been proposed (and implemented) by OLAP systems in order to reduce response times for multidimensional queries. Previous work on such caching has considered table level caching and query level caching. Table level caching is more suitable for static schemes. On the other hand, query level caching can be used in dynamic schemes, but is too coarse for "large" query results. Query level caching has the further drawback for small query results in that it is only effective ...

### 2 Simultaneous optimization and evaluation of multiple dimensional queries 80%

Yihong Zhao , Prasad M. Deshpande , Jeffrey F. Naughton , Amit Shukla  
ACM SIGMOD Record , Proceedings of the 1998 ACM SIGMOD international conference on Management of data June 1998  
Volume 27 Issue 2

Database researchers have made significant progress on several research issues related to multidimensional data analysis, including the development of fast cubing algorithms, efficient schemes for creating and maintaining summarized query results, and the design of

creating and maintaining precomputed group-bys, and the design of efficient storage structures for multidimensional data. However, to date there has been little or no work on multidimensional query optimization. Recently, Microsoft has proposed "OLE DB for OLAP" as a standard multidime ...

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**Results 1 - 2 of 2      short listing**

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